

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: BEAVER POND	Lake Area (ha):	8.01
Town: HARRISVILLE	Maximum depth (m):	3.3
County: Cheshire	Mean depth (m):	1.6
River Basin: Merrimack	Volume (m ³):	126000
Latitude: 42°56'16" N	Relative depth:	1.0
Longitude: 72°00'48" W	Shore configuration:	---
Elevation (ft): 955	Areal water load (m/yr):	27.82
Shore length (m): 800	Flushing rate (yr ⁻¹):	17.70
Watershed area (ha): 418.9	P retention coeff.:	0.44
% watershed ponded: 2.3	Lake type:	natural

BIOLOGICAL:

13 February 1997

8 August 1996

DOM. PHYTOPLANKTON (% TOTAL)	#1	SPARSE - MOSTLY	RHIZOLENIA 20%
	#2	TINY PENNATE DIATOMS	MALLOMONAS 15%
	#3		PERIDINIUM 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			11.58
DOM. ZOOPLANKTON (% TOTAL)	#1	KELICOTTIA 32%	KELICOTTIA 26%
	#2	CHROMOGASTER? 32%	CONOCHILUS 18%
	#3	KERATELLA 19%	RHIZOPOD PROTOZOAN 18%
ROTIFERS/LITER		57	422
MICROCRUSTACEA/LITER		11	155
ZOOPLANKTON ABUNDANCE (#/L)		68	727
VASCULAR PLANT ABUNDANCE			Common/Abun
SECCHI DISK TRANSPARENCY (m)			1.5
BOTTOM DISSOLVED OXYGEN (mg/L)		3.5	0.2
BACTERIA (E. coli, #/100 ml)	#1		< 1
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : 34000

CHEMICAL:

Lake: BEAVER POND

Town: HARRISVILLE

	13 February 1997		8 August 1996		
DEPTH (m)	1.5		1.5		
pH (units)	5.3		5.7		
A.N.C. (Alkalinity)	2.1		3.9		
NITRATE NITROGEN	0.05		< 0.05		
TOTAL KJELDAHL NITROGEN	0.30		0.80		
TOTAL PHOSPHORUS	0.016		0.028		
CONDUCTIVITY (μ mhos/cm)	78.9		52.6		
APPARENT COLOR (cpu)	38		150		
MAGNESIUM			0.38		
CALCIUM			2.1		
SODIUM			6.8		
POTASSIUM			< 0.40		
CHLORIDE	17		9		
SULFATE	5		2		
TN : TP	22		29		
CALCITE SATURATION INDEX			4.7		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1996

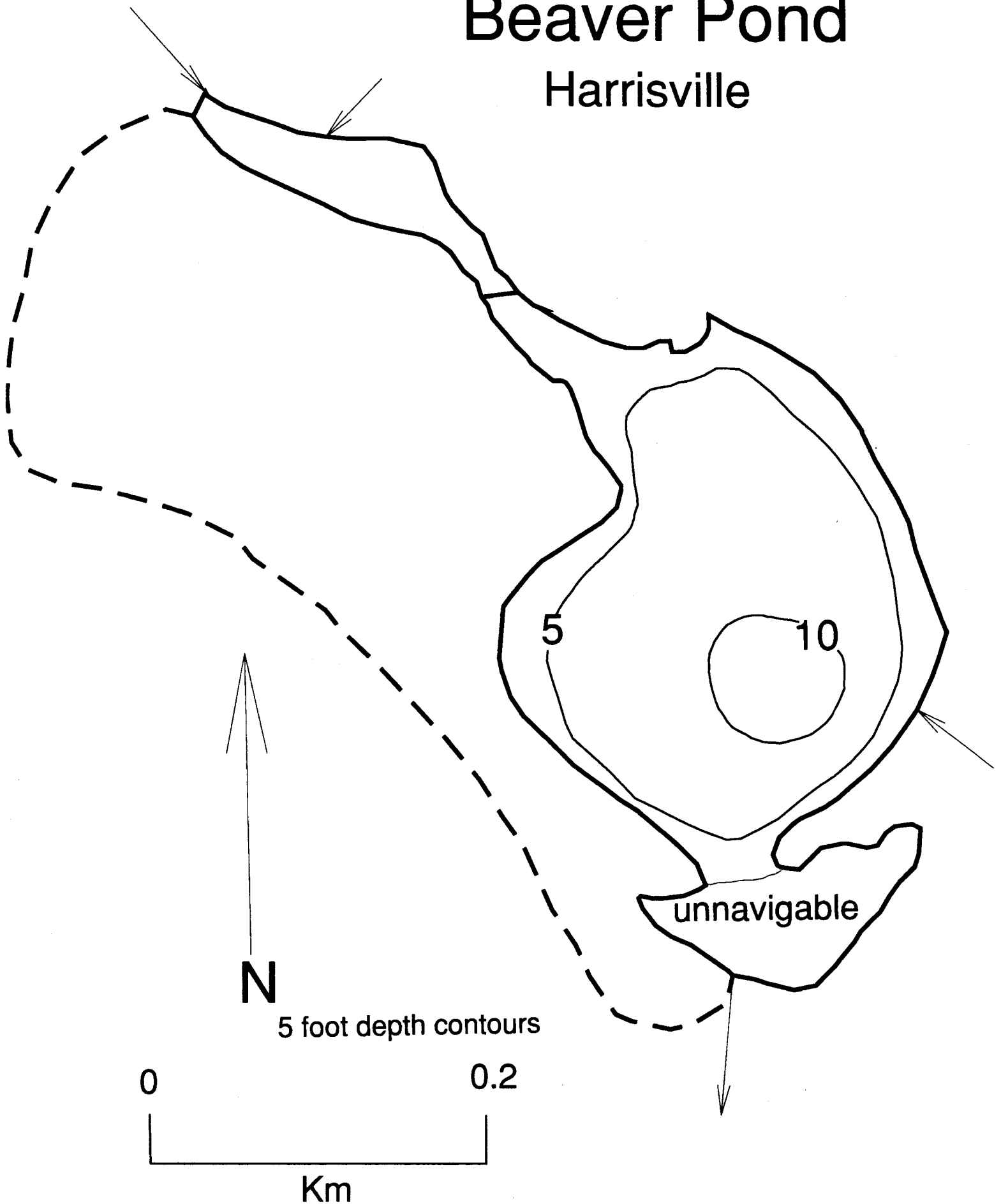
D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	4	4	2	10	Eutro.

COMMENTS:

1. This is a natural, shallow weedy pond with extensive wetlands along its inlet area. It is darkly tea-colored, moderately acidic, and eutrophic.
2. There was no dissolved oxygen below one meter and in only 3 meters the temperature dropped 12° C.
3. No public access exists. Access to open water was achieved by canoeing through dense plant beds.
4. The zooplankton were abundant, indicating the high primary productivity was passing into higher trophic levels.

Beaver Pond

Harrisville



[illegible]

Beaver Pond

Harrisville

Map of Beaver Pond, Harrisville, showing bird sightings. The pond is an irregular shape with a dashed line indicating a boundary. A north arrow points up, and a scale bar shows 0 to 0.2. The pond is filled with letters (P, Y, U, N, W, X, B, O, T) representing bird sightings. A small area at the bottom right is labeled "un navigable".

[illegible]